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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/039,072	03/13/1998	ATSUSHI SASAKI	P/1878-109	9140

7590

04/08/2005

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EXAMINER

GRIER, LAURA A

ART UNIT PAPER NUMBER

2644

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/039,072

Applicant(s)

SASAKI, ATSUSHI

Examiner

Laura A Grier

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,6,8 and 10 is/are rejected.
- 7) ☒ Claim(s) 2-3, 5, 7, and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 6, 8 and 10 rejected under 35 U.S.C. 102(b) as being anticipated by Op De Beek et al.

Regarding claims 1 and 10, Beek discloses loudspeakers (11), which reads on loudspeaker; a microphone (14) positioned in the listening environment (room) of the speaker to detect the speaker output and the distortions (reflections, which constitutes as echoes) within the listening environment, which reads on a microphone; a frequency analysis unit and equalizing unit (17/9) for correcting the frequency characteristic of the signal, which reads on a processor for generating a difference by comparing, in real time therein, with a direct output from the microphone with an output signal from a sound source (2); and an amplifier (5) – figures 1, 5 and 7, abstract, col. 8, lines 41-64, and col. 13, lines 24-38.

Regarding claims 4, 6 and 8, Beek discloses everything claimed as applied above (see claim 1). Beek further discloses an algorithm (Fourier transformation) for correct the acoustic output signal of the loudspeaker, which reads on the claimed limitations, therein.

Allowable Subject Matter

3. Claims 2-3, 5, 7, and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments filed 12/22/04 have been fully considered but they are not persuasive.

The applicant essentially argues that Beek fails to disclose a processor for comparing in real the output of the microphone with that of the sound source. Beek discloses a speaker receiving an audio input signal, wherein the audio signal is output by the speaker in a listening environment which is subject to acoustic distortions, and a microphone is provided the listening environment to pick up the signal output by the speaker, which includes the speaker's frequency response the acoustic distortions of the listening environment, and the microphone provides an feedback input signal to a frequency analysis unit, and as well an output from the sound source is also provided to the input of the frequency analysis unit, wherein a comparison takes place of the between the audio signal and microphone signal to provide a modified control signal respective the microphone and sound source output to an equalizing unit (in real time), for correcting the acoustic sound field of the loudspeaker. Beek also discloses reflections which are be characterized as reverberation characteristics. And thus the


claim language fails to specifically claim "echo suppression" as argued by the applicant. Thus, the Beek Rejection is maintained.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A Grier whose telephone number is (571) 272-7518. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh N Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Laura A. Grier
April 4, 2005